

## ERICA Product Details

Roche KJ, D Kothe, R Kendall, S Ahern, J Hack, JC Oefelein, CS Chang, D Pugmire, TM Evans, H Childs, J Rosinski, KJ Evans, S Klasky, P Worley, E D'Azevedo, SH Ku, and R Sankaran. 2009. *FY 2009 US OMB PMM DOE SC OASCR Software Metric SC GG 3.1/2.5.2: Improve Computational Science Capabilities*. PNNL-24607, Pacific Northwest National Laboratory, Richland, WA.

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	The report presents the problems and work conducted to satisfy the Department of Energy's (DOE) Office of Advanced Scientific Computing Research (ASCR) program's FY09 software effectiveness measure, part of its annual Office of Management and Budget (OMB) program goal entered into DOE's Performance Measure Manager (PMM) system at the end of the FY, for the following science and engineering applications: VisIt (an

<b>Description:</b>	open source interactive parallel analysis and visualization tool for scientific data), CAM (the community atmospheric model developed at the National Center for Atmospheric Research (NCAR) for the weather and climate research communities), XGC1 (a 5D gyrokinetic particle-in-cell (PIC) code designed to model the whole plasma dynamics in experimentally realistic tokamak device geometries), and RAPTOR (a massively parallel flow solver that has been optimized for application of large eddy simulations to turbulent, chemically reacting and/or multiphase flows in complex geometries with emphasis placed on propulsion and power systems).
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\*\* N/A indicates the field was left blank

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